

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/051269

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))
☐ publication of the international application (Rule 12.4)
☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-3, 5-17 as originally filed/furnished

pages* 4, 4a received by this Authority on 10.02.2005 with letter of 10.02.2005

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-12 received by this Authority on 10.02.2005 with letter of 10.02.2005

nos.* _____ received by this Authority on _____

☒ the drawings:

sheets 1/4-4/4 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/051269

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-12</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-12</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-12</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. Technical field

The invention relates to a method for synchronising a wireless communication system divided up into wireless cells.

2. Problem addressed

The object is to design a cellular wireless communication system that offers subscribers optimum wireless coverage with both high and low volumes of traffic while ensuring minimum co-channel interference.

3. Solution

If the number of mobile stations exceeds a specified threshold value, a second synchronisation method is used whereby the mobile stations receive signals from base stations in their own wireless cell as well as from neighbouring base stations. The base station signals are used to determine a time synchronisation value and a frequency synchronisation value to which the mobile station then synchronises itself.

Advantage

There is no need to transmit high-precision reference

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
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signals to the mobile station because each mobile station is synchronised to a received average value for all the received base stations. This releases additional wireless transmission resources that can be used to handle user data transmissions.

4. Prior art

WO-A-00/35117 (document D2) is considered to be the closest prior art, and forms the basis of the preamble of claim 1. The aforementioned solution is not obvious even from a combination of the teachings of documents D2 and D1 (US-A-5 872 774).

5. PCT Article 41(2)

Claim 1 is based on claims 1 and 2 in the original application.